

Title (en)

WIRELESSLY POWERED ELECTRIC ACTUATION OF PARTICLES AND MOLECULES

Title (de)

DRAHTLOS BETRIEBENE ELEKTRISCHE BETÄTIGUNG VON PARTIKELN UND MOLEKÜLEN

Title (fr)

ACTIONNEMENT ÉLECTRIQUE ALIMENTÉ SANS FIL DE PARTICULES ET DE MOLÉCULES

Publication

**EP 4248203 A1 20230927 (EN)**

Application

**EP 21895443 A 20211116**

Priority

- US 202063114646 P 20201117
- US 2021059507 W 20211116

Abstract (en)

[origin: WO2022108921A1] A wireless circuit including an electrode array with a nanoscale dielectric disposed between two electrodes allows for wirelessly powered manipulation of particles in a liquid solution, air, or gaseous media via dielectrophoretic forces. The electrode array includes a first electrode, a second electrode, and a nanoscale dielectric layer between the first and second electrode. An inductive coupler is operatively coupled to the electrode array and configured to receive wireless power or wireless signals.

IPC 8 full level

**G01N 27/447** (2006.01); **H02J 50/10** (2016.01); **H02J 50/12** (2016.01)

CPC (source: EP US)

**G01N 27/44713** (2013.01 - US); **G01N 27/4473** (2013.01 - US); **H02J 50/005** (2020.01 - EP); **H02J 50/12** (2016.02 - EP US)

Citation (search report)

See references of WO 2022108921A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**WO 2022108921 A1 20220527**; CN 116783479 A 20230919; EP 4248203 A1 20230927; US 2024014689 A1 20240111

DOCDB simple family (application)

**US 2021059507 W 20211116**; CN 202180090967 A 20211116; EP 21895443 A 20211116; US 202118037395 A 20211116